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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VEILLARD, JACQUES

ART UNIT

PAPER NUMBER

2175

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6

Please find below and/or attached an Office communication concerning this application or proceeding.

PR

# Office Action Summary

Application No.  
09/928,962

Applicant(s)  
Shamim A. Alpha

Examiner  
JACQUES VEILLARD

Art Unit  
2175



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 13, 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_                      6) ☐ Other:

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### DETAILED ACTION

1. This office action is in response to the Applicant's application filed on 08/13/2001.
2. Claims 1-25 are presented for examination.
3. Claims 1, 9, 15, and 20 are the independent claims. Other claims are the dependent.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1, 5, 7-10, 12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Chakrabarti et al.(U. S. Pat. No. 6,418,433 and hereinafter Chakrabarti).

As per claims 1 and 9, Chakrabarti discloses a web crawler method learns to recognize web pages that are relevant to the interest of one or more users (See the Title and the abstract).

Similarly Chakrabarti's method determines a relevance rank for each of a plurality of pages identified by a search query (See col.2, lines 56-60), and comprising the steps of: determining a

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content-based relevance rank for each of the pages based on a content of each page (See col.3, lines 6-12); and adjusting the content-based relevance rank of each page based on a link structure of the pages including link rank values from in-coming links (See Fig.2, components 112-118, col.6, lines 16-35, and col.8, lines 35-41). Chakrabarti achieved the adjusting the content-based relevance rank of each page by determine “relevance priority of the pages”.

As per claims 5 and 7, Chakrabarti discloses the claimed invention limitations, wherein the adjusting the relevance rank step includes combining the relevance rank of a page with the link rank values of all in-coming links to the page (See col.6, lines 21-22).

As per claim 8, Chakrabarti discloses the claimed invention limitations, further including identifying a candidate set of pages in response to the search query (See col.5, lines 22-25, and col.6, lines 35-41).

As per claim 10, Chakrabarti discloses the claimed invention limitations, further including link structure logic for obtaining a link structure of the candidate set of pages to determine in-coming and out-going page links (See col.6, lines 21-39, and col.10, lines 35-43).

As per claim 12, Chakrabarti discloses the claimed invention limitations, further including link analysis logic for determining the link analysis rank for each out-going page link

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from the candidate set of pages (See col.3, lines 4-12), where the link analysis rank for an out-going page link from a selected page represents a probability that a user will follow the out-going page link from the selected page (See col.6, line 66 through col.7, line 17).

As per claim 14, Chakrabarti discloses the claimed invention limitations, further including an information retrieval system for identifying the candidate set of pages from a network in response to the search query (See col.5, lines 22-25, and col.6, lines 49-51).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2,-4, 6, 11, 13, 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chakrabarti.(U. S. Pat. No. 6,418,433) in view of Jawahar et al.(U. S. Pat. No. 6,256,620).

As per claim 2, Chakrabarti teaches the claimed invention as recited in claim 1. However, Chakrabarti does not explicitly teach the invention wherein the content-based relevance rank for each page is determined from a probability value that a user will be on the page in relation to other pages of the identified pages.

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Jawahar teaches a method and apparatus for monitoring information access wherein the information accessing may use a web browser application to access application stored in web pages and the access monitoring application may monitor web pages (See Title and abstract) including the features, wherein the content-based relevance rank for each page is determined from a probability value that a user will be on the page in relation to other pages of the identified pages (See col.15, lines 55-58). Jawahar achieved this limitations by showing the time the user spent viewing a page.

It would have been obvious to a person for ordinary skill in the at the time of the applicant's invention to modify the teachings of Chakrabarti with the teachings of Jawahar because Jawahar provides a system that monitors the access information by an individual or system wherein the total time the user has viewed a particular page or leaved a particular page can be determined.

As per claim 3, Jawahar teaches the claimed invention limitations, further including determining the link rank value for each out-going link from an associated page based on a probability of leaving the associated page (See Fig.9, step 272, and col.16, lines 49-51). The time spent by the user for viewing the pages corresponds to the same time he/she has to leave the pages.

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As per claim 4, the combination of Chakrabarti and Jawahar as modified teaches the claimed invention limitations, wherein the determining the link rank value step includes distributing the probability of leaving the associated page (See Jawahar's Fig.9, step 272, and col.16, lines 49-51).to all out-going links of the associated page weighted by the content-based relevance rank of a page referenced by the out-going link (See Chakrabarti's col.7, lines 52-65).

As per claim 6, Jawahar teaches the claimed invention limitations, further including translating the content-based relevance rank for each page to a staying probability value representing a probability that a user will stay on a page (See col.15, lines 60-62). The total time spent viewing the web pages determines how long the user stays on the pages..

As per claim 11, Jawahar teaches the claimed invention limitations, further including a probability logic for determining a staying probability for each page being a probability that a user will stay on a given page (See col.15, lines 60-62), and for determining a leaving probability for each page being a probability that a user will leave a given page (See Fig.9, step 272, and col.16, lines 49-51).

As per claim 13, the combination of Chakrabarti and Jawahar as modified teaches the claimed invention limitations, wherein the link analysis logic further includes logic for distributing the leaving probability for the selected page (See Jawahar's Fig.9, step 272, and

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col.16, lines 49-51) to the out-going page links based on a ratio of the content-based relevance rank of child pages referred to by the out-going page links (See Chakrabarti's col.7, lines 42-51).

As per claim 15, Chakrabarti teaches a system wherein the relevance ranking for pages obtained from a network search query (See col.2, lines 56-60, and col.3, lines 53-56), the system comprising: link structure logic for obtaining a link structure of the pages which identifies out-going links (See col.3, lines 19-21) from each of the pages which become in-coming (See col.6, lines 16-22) links to other pages; a content analyzer for determining a content of each page (See Fig.1, components 28 and 28A, and col.10, lines 10-17); a content relevance ranking logic for determining a content relevance rank for each page based on a content of the page in relation to the network query (See col.3, lines 53-56, and col.6, lines 49-51); link analysis logic for determining a link ranking for each of the out going links for each of the pages (See col.10, lines 35-42); and a relevance rank adjuster for determining and adjusting a relevance rank of a page by combining the content relevance rank with the link rankings associated to in-coming links for the page (See Fig.2, components 112-118, col.6, lines 16-35, and col.8, lines 35-41). Chakrabarti achieved the adjusting the content-based relevance rank of each page by determine "relevance priority of the pages".

Chakrabarti does not explicitly teach the link ranking representing a probability of leaving an associated page by the out-going link.



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Jawahar teaches a method and apparatus for monitoring information access wherein the information accessing may use a web browser application to access application stored in web pages and the access monitoring application may monitor web pages (See Title and abstract) wherein the link ranking representing a probability of leaving an associated page by the out-going link (See Fig.9, step 272, and col.16, lines 49-51). The time spent by the user for viewing the pages corresponds to the same time he/she has to leave the pages.

It would have been obvious to a person for ordinary skill in the art at the time of the applicant's invention to modify the teachings of Chakrabarti with the teachings of Jawahar because Jawahar provides a system that monitors the access information by an individual or system wherein the total time the user has viewed a particular page or leaved a particular page can be determined.

As per claim 16, Jawahar teaches the claimed invention limitations, wherein the relevance rank of each page is represented by a probability of a user being on the page in relation to all pages obtained from the search query (See col.15, lines 55-58). Jawahar achieved this limitations by showing the time the user spent viewing a page.

As per claims 17 and 18, Jawahar teaches the claimed invention limitations, wherein the link analysis logic includes logic for determining a total probability of leaving a page and

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distributing the total probability of leaving the page to the out-going links of the page (See Fig.9, step 272, and col.16, lines 49-51).

As per claim 19, Chakrabarti teaches the claimed invention limitations, further including an information retrieval system for identifying a candidate set of pages from a network in response to the network search query (See col.2, lines 56-60, and col.3, lines 53-56).

As per claim 20, Chakrabarti teaches a similar method of ranking a set of candidate pages in response to a search query and identifying the candidate pages from a network that potentially match the search query (See col.3, lines 53-56); adjusting the content-based relevance rank of each candidate page where the content-based relevance rank for a selected candidate page is influenced by a quantity and relevance of candidate pages that point to the selected candidate page (See Fig.2, components 112-118, col.6, lines 16-35, and col.8, lines 35-41). Chakrabarti achieved the adjusting the content-based relevance rank of each page by determine “relevance priority of the pages”; and ranking the candidate pages based on the adjusted content- based relevance rank (See col.5, line 61 through col.6, line 25).

Chakrabarti does not explicitly teach assigning a content-based relevance rank to each candidate page based on a probability that a user will stay on a selected candidate page.

Jawahar teaches a method and apparatus for monitoring information access wherein the information accessing may use a web browser application to access application stored in web

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pages and the access monitoring application may monitor web pages (See Title and abstract) including the features, assigning a content-based relevance rank to each candidate page based on a probability that a user will stay on a selected candidate page (See col.15, lines 55-58). Jawahar achieved this limitations by showing the time the user spent viewing a page.

It would have been obvious to a person for ordinary skill in the at the time of the applicant's invention to modify the teachings of Chakrabarti with the teachings of Jawahar because Jawahar provides a system that monitors the access information by an individual or system wherein the total time the user has viewed a particular page or leaved a particular page can be determined.

As per claim 21, the combination of Chakrabarti and Jawahar as modified teaches the claimed invention limitations, further including determining a link value for each out-going link (See Chakrabarti's col.6, lines 25-34) from the candidate pages in accordance with a probability that the user will leave a selected candidate page by following a selected out-going link (See Jawahar's Fig.9, step 272, and col.16, lines 49-51).

As per claim 22, Chakrabarti teaches the claimed invention limitations, wherein the probability of following an out-going link from the selected candidate page is a function of the relevance of all referred pages and the relevance of the selected candidate page (See col.7, lines 3-25).

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As per claim 23, Chakrabarti teaches the claimed invention limitations, wherein adjusting includes distributing, to the selected candidate page, the quantity and relevance of candidate pages that point to the selected candidate page based on a link structure of the candidate pages (col.5, line 61 through col.6, line 25).

As per claim 24, the combination of Chakrabarti and Jawahar as modified teaches the claimed invention limitations, wherein the distributing includes determining a link value for a page link as a probability of following the page link based on a weighted (See Chakrabarti's col.7, lines 52-65) probability of leaving a page by the page link and a relevance of a page being pointed to by the page link (See Jawahar's Fig.9, step 272, and col.16, lines 49-51).

As per claim 25, Jawahar teaches the claimed invention limitations, wherein the adjusting includes determining, for each candidate page, a probability of a user being on a page in relation to all candidate pages, the probability of a user being on a page being set as the adjusted content-based relevance rank for that page (See col.15, lines 55-58). Jawahar achieved this limitations by showing the time the user spent viewing a page.

***Other Prior Art Made of Record***

- |    |           |                           |
|----|-----------|---------------------------|
| 8. | Kleinberg | U. S. Pat. No. 6,112,202, |
|    | Page      | U. S. Pat. No. 6,285,999, |

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Bharat et al.	U. S. Pat. No. 6,112,203,
Bharat	U. S. Pat. No. 6,526,440
Chakrabarti et al.	U. S. Pat. No. 6,356,899, and
McAdam et al.	U. S. Pat. No. 6,480,882.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. **Any response to this action should be mail to:**

Commissioner of Patent and Trademarks

Washington, D.C. 20231

**Or faxed to:**

(703) 746-7239 (for formal communication intended for entry)

**Or:**

(703) 746-7240 ( for informal of draft communications, please label

“PROPOSED” or “DRAFT”)


Hand - delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington.

VA, Fourth Floor Lobby (Receptionist Telephone No. (703) 305-3900).

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques Veillard whose telephone number is (703) 305-7094. The examiner can normally be reached Monday through Friday from 9:30 AM to 4: 30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached on ( 703) 305-3830. The fax phone number for this group is (703) 308-5403.

  
HOSAIN T. ALAM  
PRIMARY EXAMINER

*Jacques Veillard*

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Jacques Veillard  
Patent Examiner TC 2100

April 3, 2003